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NOTICE OF ALLOWANCE AND FEE(S) DUE

2292 7590 05/04/2010 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747 EXAMINER
WALBERG, TERESA J
ART UNIT PAPER NUMBER
3744

DATE MAILED: 05/04/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,267	05/25/2006	Hans Rausing	0104-0575PUS1	2577

TITLE OF INVENTION: HEAT EXCHANGER PLATE AND PLATE HEAT EXCHANGER COMPRISING SUCH PLATES

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	08/04/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and I/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

appropriate. All further indicated unless correct maintenance fee notifica	correspondence includir ed below or directed of tions	ng the Patent, advance on nerwise in Block 1, by (a	rders and notification of r a) specifying a new corres	naintenance fees v pondence address	vill be and/o	mailed to the current r (b) indicating a sepa	correspondence address a arate "FEE ADDRESS" fo
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)			Feet	Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.			
2292		/2010		Cer	tificate	of Mailing or Trans	mission
PO BOX 747	'ART KOLASCH 'H, VA 22040-0747		I he Stat addi tran	reby certify that the es Postal Service versed to the Mail smitted to the USP	is Fec(vith sul l Stop TO (57	s) Transmittal is being ficient postage for fir ISSUE FEE address I) 273-2885, on the d	g deposited with the United st class mail in an envelope above, or being facsimile ate indicated below.
							(Depositor's name)
							(Signature)
							(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTO	RNEY DOCKET NO.	CONFIRMATION NO.
10/580,267	05/25/2006	•	Hans Rausing		0	104-0575PUS1	2577
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nonprovisional	NO	\$1510	\$300	\$0		\$1810	08/04/2010
EXAM	IINER	ART UNIT	CLASS-SUBCLASS	J			
WALBERG		3744	165-109100				
1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.563). Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.		2. For printing on the patent front page, list (1) the names of up 03 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to					
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.		2 registered patent attorneys or agents. If no name is listed, no name will be printed.					
			THE PATENT (print or type				
PLEASE NOTE: Un recordation as set fort	less an assignee is ident h in 37 CFR 3.11. Com	ified below, no assignee pletion of this form is NO	data will appear on the p T a substitute for filing an	atent. If an assign assignment.	ee is io	lentified below, the d	ocument has been filed fo
(A) NAME OF ASSI			(B) RESIDENCE: (CITY				
Please check the appropr	iate assignee category or	categories (will not be pr	rinted on the patent):	Individual 🚨 Co	orporati	ion or other private gr	oup entity Governmen
4a. The following fee(s)	are submitted:	41	b. Payment of Fee(s): (Plea	se first reapply a	ny prev	lously paid issue fee	shown above)
Issue Fee		to a	A check is enclosed.	1 E PERO 2020			
Publication Fee (No small entity discount permitted) Advance Order - # of Copies			☐ Payment by credit card. Form PTO-2038 is attached. ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any				
			overpayment, to Depo	sit Account Numb	er	(enclose a	n extra copy of this form).
5. Change in Entity Sta	tus (from status indicate is SMALL ENTITY stati		☐ b. Applicant is no lon	oor claiming SMA	I EN	FITV status Sec 37 C	FR 1 27(a)(2)
							ne assignee or other party in
Authorized Signature				Date			
Typed or printed name				Registration N			
This collection of inform an application. Confiden submitting the complete this form and/or suggest Box 1450, Alexandria, V Alexandria, Virginia 223	nation is required by 37 C tiality is governed by 35 d application form to the ions for reducing this bu 'irginia 22313-1450. DC t13-1450.	CFR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the ONOT SEND FEES OR	on is required to obtain or r 1.14. This collection is est depending upon the indiv e Chief Information Office COMPLETED FORMS TO	etain a benefit by t imated to take 12 idual case. Any co er, U.S. Patent and D THIS ADDRESS	he pub minute mmen Trader S. SEN	lic which is to file (and to complete, including to on the amount of timerk Office, U.S. Dep D TO: Commissioner	d by the USPTO to process g gathering, preparing, and me you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450

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PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



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10/580,267	05/25/2006	Hans Rausing	0104-0575PUS1	2577	
2292 75	90 05/04/2010	EXAMINER			
BIRCH STEWA	RT KOLASCH & B	WALBERG	, TERESA J		
PO BOX 747		ART UNIT	PAPER NUMBER		
FALLS CHURCH, VA 22040-0747			3744		
			DATE MAIL ED: 05/04/2010		

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 99 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 99 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.	Applicant(s)		
10/580,267	RAUSING, HANS		
Examiner	Art Unit		

	elesa J. Walberg 3744
All claims being allowable, PROSECUTION ON THE MERITS IS (OI lerewith (or previously mailed), a Notice of Allowance (PTOL-35) or VOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGE of the Office or upon petition by the applicant. See 37 CFR 1.313 ar	other appropriate communication will be mailed in due course. THIS ITS. This application is subject to withdrawal from issue at the initiative d MPEP 1308.
 This communication is responsive to the amendment of Janua 	<u>ary 2010</u> .
2. The allowed claim(s) is/are <u>1-14,16,18 and 19</u> .	
Acknowledgment is made of a claim for foreign priority unde a) All b) Some* o) None of the: 1. Certified copies of the priority documents have be 2. Certified copies of the priority documents have be	en received.
_ , , , , ,	nents have been received in this national stage application from the
International Bureau (PCT Rule 17.2(a)). * Certified copies not received:	
Applicant has THREE MONTHS FROM THE "MAILING DATE" of the noted below. Failure to timely comply will result in ABANDONMEN THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.	
 A SUBSTITUTE OATH OR DECLARATION must be submitte INFORMAL PATENT APPLICATION (PTO-152) which gives r 	
5. CORRECTED DRAWINGS (as "replacement sheets") must be (a) including changes required by the Notice of Draftsperson	
1) ☐ hereto or 2) ☐ to Paper No./Mail Date (b) ☐ including changes required by the attached Examiner's A Paper No./Mail Date	mendment / Comment or in the Office action of
Identifying indicia such as the application number (see 37 CFR 1.84 each sheet. Replacement sheet(s) should be labeled as such in the	
 DEPOSIT OF and/or INFORMATION about the deposit attached Examiner's comment regarding REQUIREMENT FO 	
Attachment(s)	5. ☐ Notice of Informal Patent Application
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)	6. ☐ Interview Summary (PTO-413),
Information Disclosure Statements (PTO/SB/08),	Paper No./Mail Date 7. ☐ Examiner's Amendment/Comment
Paper No./Mail Date 12/28/09 I. Examiner's Comment Regarding Requirement for Deposit	8. X Examiner's Statement of Reasons for Allowance
of Biological Material	9. Other
/Teresa J. Walberg/	
Primary Examiner, Art Unit 3744	
	1

Application/Control Number: 10/580,267

Art Unit: 3744

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: The prior art does not disclose a heat exchanger plate having the claimed structure including a number of turbulence promoting protuberances, each of the protuberances having a surface profile extending over the surface of the protuberance for promoting break-up of laminar boundary layers the surface profile consisting of spherical or ellipsoid segments approximately evenly spaced over the entire surface of the surface of the protuberance...

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Teresa J. Walberg whose telephone number is 571-272-4790. The examiner can normally be reached on M-F 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 10/580,267 Page 3

Art Unit: 3744

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Teresa J. Walberg/ Primary Examiner, Art Unit 3744

/TW/